Little (W. S.)

THE CARE OF EYES IN INSTITUTIONS FOR CHILDREN—FOURTEEN YEARS' EXPERIENCE IN HOSPITALS AND HOMES FOR CHILDREN.

WITH DISCUSSION.

BY WILLIAM S. LITTLE, A.M., M.D.,

Chief Clinical Assistant Eye Department, Jefferson Medical College Hospital; Ophthalmic and Aural Surgeon, Church Home for Children.

Read before the Philadelphia County Medical Society, June 23d, 1886.

The number of hospitals and homes established in large cities and dispersed through country regions exhibits the aid that State, denominational, general and individual charity dispenses to juvenile life that demands its support. While the question may be raised, whether adult life in ill health and poverty is always worthy of the aid that is so largely granted by the various charities in existence; deserted and unsupported child life always demands a generosity that can never be lightly considered or withheld. Along with the aggregation of so many dependent lives in asylums is associated the responsibility of protection until they are able to care for themselves. Preventive medicine has no better field in which to work, than affording a safe-conduct to these children, whose health depends on the sanitary condition of the buildings they inhabit, the kind of food they receive, the protection from and proper treatment of disease occurring among them, or possible to be introduced from those continuously admitted, generally from among unhealthy surroundings and in a poor state of health. While appreciating the necessity of the exclusion of all communicable diseases, and the effects of epidemics that impair or destroy life, attention at this time is directed to the possible dangers to vision from communicable eye disease in institutions for children—a disease not required to be reported to Boards of Health, or restricted by any law. Despite all the protection that is thrown around the inmates of these homes, abuses arise which the State authorities and medical effort endeavor to combat; as has been illustrated in our own State quite recently by the former, and as has been exhibited by the latter, not long since, by the report of a committee appointed by the New York Academy of Medicine to investigate the presence of contagious ophthalmia in the asylums and residential homes in that State. The results obtained by this committee have led me to introduce this topic before the Society.

In 1878, Dr. R. H. Derby, of New York City, began, in an individual way, to investigate the subject, and presented, in October, 1884, a report for the Committee of Hygiene of the county society, based on an examination of three asylums. He read, in June, 1885, a paper before the New York Academy of Medicine, on "Contagious Ophthalmia in Asylums and Residential Homes," based on the results obtained from an examination made in twenty-four asylums, finding contagious ophthalmia present to the extent of 19.19 per cent., one out of five. A committee from the Academy of Medicine was appointed * to inquire further as to the presence of contagious ophthalmia in asylums and residential homes, and suggest remedies for it. The committee consisted of Dr. C. R. Agnew, Dr. C. S. Bull, Dr. David Webster, Dr. Richard H. Derby (chairman), Dr. A. Jacobi; associate members, Dr. E. L. Oatman, Nyack, N. Y.; Dr. C. S. Merrill, Albany, N. Y.; Dr. John J. Milhau, of State Board of Charities; Arthur G. Sedgwick, Esq., of State Charities Aid Association; Elbridge T. Gerry, Esq., President of Society for the Prevention of Cruelty to Children; James Gallatin, Esq., President of New York Association for Improving the Condition of the Poor. Sanitary experts from the Board of

* June 23d, 1885.

Reprinted from THE POLYCLINIC, July, 1886.

Health acted with them, and twenty-four ophthalmic surgeons assisted in making the investigation. Fifty-one institutions are included in the report * of the committee, made January 7th, 1886, to the Academy of Medicine. The proposed Act for the better preservation of the health of children in institutions, together with a statement in regard to the prevalence of ophthalmia in such institutions, was introduced into the legislature of the State of New York, February 4th, 1886, and the Act now awaits the Governor's signature. The fifty-one institutions contained 12,684 children; of these, 3862—thirty per cent.—had contagious ophthalmia.

Mr. William B. Wait, Superintendent of the New York Institution for the Blind, under date of January 27th, 1886, informed the committee that, in the past few years, thirty-nine cases of blindness had been received from eleven of these institutions; principally from three of them.

It is not now proposed to describe fully contagious ophthalmia, or give the treatment, but rather to show how to prevent its introduction among inmates of an asylum, or, if it arises, how to control it. To draw the line at which a case of conjunctivitis becomes contagious is not easy; so much depends on the state of the whole conjunctival sac, whether hyperæmic or already irritable; the general state of health is an important factor; whether the child has any dyscrasia; also, whether the sanitary surroundings are good, and no vitiated air inhaled. This is so in a given case, or among those exposed to a conjunctivitis, whether contagious or not, or when exposed to material that will develop it in an unhealthy conjunctiva. All states of the tissue that afford a hot-bed for contagion should be recognized and treated; such precautions will do much to prevent the spread of contagion.

With very young children, who are dependent on others to perform the ablutions of the body, and who cannot express the sense of pain or locate trouble, except by cries, the danger is the greatest; they require the services of responsible, careful nurses, and need inspection by the physician oftener than other children. Neglect to use clean water and separate towels for each child is a most essential factor in the propagation of an ophthalmia. Older children, who can care for themselves in this respect, do not run so great risk, for they soon learn cleanly habits, if taught, and protect themselves, and can call attention to their trouble; they also do better if a responsible person is present when they wash their faces and bodies, to see that no indiscriminate use of water and towels occurs. The freedom large boarding schools have from ophthalmia illustrates the advantage of individual and separate ablutions of the body. The inside of the lower eyelid will be found, with a great many people, to be in a constantly irritated state, without secretion, the other portion of the conjunctiva normal; very like the mucous membrane of the posterior nares, is found to be, and is considered a normal state, or an American peculiarity. These are the cases that take on a catarrhal, or other inflammation, most easily, and afford the best condition for a contagious ophthalmia to feed on; they need to be relieved by treatment, and watched, so that no further advance takes place. These cases may not need isolation, and are not dangerous, but if a secretion is associated with this state of the tissue, isolation and treatment till relieved, is the better plan in a crowded asylum for children. Phlyctenular conjunctivitis or keratitis can hardly be considered contagious, but is rather due to bad health, poor sanitary surroundings and ocular strain. It readily takes on a serious character, and needs constitutional and local treatment; the neglected conjunctivitis may take on a contagious condition. Tinea tarsi is to be looked after, or else becomes very troublesome, causing excoriated lid surface and distortion of the lid; and pediculi, if allowed to exist on the person, may attack the part; isolation in such cases is necessary. Are granular lids contagious? Such is not my experience among institutions or among families where it exists; the neglected form, in which in addition to granulations, a chronic conjunctivitis is added, with constant secretion, associated with poor health, bad food and poor sanitary surroundings, such a case may produce a contagious ophthalmia among others, if allowed to mingle among them, and use the same wash basins and towels, and sleep with others, vitiating the atmosphere and spreading the disease among already irritable conjunctivæ; it is not the con-

* See New York *Medical Record*, February 13th, 1886.

tagion from the self-developed granule which is the cause, but the neglected chronic conjunctivitis associated with it. Diphtheritic conjunctivitis is rare; the constitutional symptoms are so severe that medical aid would be called for; danger from this element is evaded by isolation, and correcting unsanitary surroundings; it requires special knowledge in the care of the eyes to prevent the violent inflammation from destroying the sight, and also the careful treatment that diphtheria demands. It has never developed in any of the institutions with which I have been connected, but I have seen it, rarely, in consultation and private practice, and in the eye clinic. The high moral tone that should surround an asylum for children, is a barrier to any specific ophthalmia. The selection of those that care for the children is very important, and they should have their own lavatories and sleeping apartments, separate from the children. A night nurse should be on duty. Dr. R. H. Derby, in his article on "Contagious Ophthalmia," * quotes the description of the disease from Graefe and Saemisch, Vol. x, pp. 76 to 79, adding much to it from his own experience, and I would refer you to that article for a full description. He says, "It passes for a catarrhal affection of the eyes, and as such is treated; or it exists, and this is often the case, without receiving any medical treatment whatever." Also, "among them were those where the true granulations, the so-called trachoma of Arlt, were present; others that might be more properly described as chronic conjunctival blennorrhœa. In some the affection had extended to the cornea, producing pannus, and in certain cases, corneal ulceration had been followed by prolapse of the iris and adhesion. The secretion is contagious. In striking illustration of the communicability of the disease, it was often noticed that when a pronounced case was found, a group of children presented themselves in succession with the same trouble, and these were children who habitually occupied adjacent seats."

In the statement prepared by the committee of the Academy of Medicine,† the following sentence occurs: "One peculiarity of the disease is that it may exist for months, and even years, in eyes which to the lay attendant, and even by the patient afflicted with it, have been thought to be perfectly healthy." Elsewhere Dr. Andrews says: "But the majority of the cases of contagious eye disease in this and kindred institutions show no sign of eye trouble to a casual observer, and the disease is evident only when the lids are everted." Contagious ophthalmia is a chronic conjunctival blennorrhœa, its secretion contagious, and disseminated in various states and ways; powerful and persistent to set up an ophthalmia in the conjunctiva with which it may come in contact, after developing *de novo* in a case from unhealthy surroundings and conditions; its virulence depends on its strength, but may be variable, as a person is susceptible, or different conditions of the conjunctiva are present, and the state of health and surroundings vitiated. The characteristics of the tissue and the secretion need to be studied under the microscope. It acts like the secretion from a case of gleet, or the low types of inflammation any mucous membrane may assume. As far as the welfare of those we are now considering is concerned, it should be excluded, early recognized and rapidly exterminated.

This much for what contagious ophthalmia is, the difficulties of recognizing it, the importance of frequent inspections of the eyes of children in "homes," and the danger it affords to the organs of vision. The importance of the subject warrants my intruding my experience in caring for the eyes of children upon you at this time; the length of service and the good results obtained by carrying out strictly laws of prevention, and abiding by a sanitary and hygienic system, enables me to show how an institution, without medical legislation, has been conducted, by a Board of Directors and Lady Managers, who have been most untiring in their efforts to provide a model home for child life. The services of the medical staff have been much lightened by the condition and conduct of affairs in and about the institution. I refer principally to the Church Home for Children, Philadelphia, where I have been on duty for ten years. My service in hospitals and homes for children dates from 1872; in addition to the general medical service, I have had the care of the eyes and ears placed in my hands; the importance of looking after the ears of the very young should not be overlooked, and demand

* New York *Medical Record*, June 13th, 1885

† See *New York Medical Record*, February 13th, 1886.

the same inspection and care as the eyes; the difficulty of the examination calls for some expertness. My first service was as assistant resident physician to the Infants' Hospital, Randall's Island, New York, in 1872; here three hundred infants under three years of age were cared for; the wards were open to the foundlings of the city, mother and child, from the maternity wards of Charity and Bellevue Hospitals, that were homeless, and to the neglected mother and child of the city and county of New York. The sources of danger from contagious ophthalmia were as numerous as could be looked for, as immediate aid had to be granted. A reception ward took the place of a quarantine building, so that promiscuous accession to the numerous wards was prevented. No epidemic occurred during my service of a year, nor was blindness the result of any ophthalmia. The death rate for the year was eighteen per cent. In 1873 I became one of the resident physicians to the Institution for Idiotic, Paralytic and Epileptic Children, and to the Nursery Hospital and Nurseries on Randall's Island. Some twelve hundred children were here cared for. The class of children belonged to the element that the State is given to aiding. A quarantine building was provided and strictly kept. An eye ward existed in the Hospital and contained a number of cases that showed what contagious ophthalmia could accomplish; they came from this and other institutions; from the homes where they could not be cared for. It is not only in institutions that the disease is propagated; the homes in the slums of a large city, where child life is neglected, are hot-beds of it, and every eye clinic has it to contend with; such cases are apt to be shifted from institution to institution, till they reach the place of last resort. Perhaps my observation of these cases has stimulated me in the precautions I have always exercised in guarding the institution I was then in, and have been connected with since, against possible contagion from this source. During my service only one eye was lost, and that was due to a constitutional taint, and occurred despite all medical and surgical relief. No epidemic of contagious ophthalmia arose during my service of a year; inspections were frequent, and the bathing rooms carefully looked after. The Commissioners of Charities and Correction were very zealous in providing for the wants of the children, and granted all requisitions. For a long time an ophthalmic surgeon has been on the visiting staff, and this institution does not appear in the list from which the statistics of the Committee on Contagious Ophthalmia are derived.

In 1875 my service commenced as one of the visiting physicians to the Educational Home in West Philadelphia, a branch of the Lincoln Institute. Boys were here received, and one hundred accommodated. The strict laws as to admission (no one entered without a clean bill of health), the good habitation, liberal diet, and fine sanitary surroundings, always remedied when found defective, gave the staff little to do. Special care was taken of the bathing room, the cleanliness of the towels and basins. The boys were under constant surveillance. No epidemic of contagious ophthalmia occurred during my service of several years, nor did blindness occur to any. Indian boys now occupy the Home, and an examination as to how their eyes are, now would be very instructive, as their manner of life varies so from that they formerly exercised. In 1876 I was appointed one of the visiting physicians to the Church Home for children, at Angora, Philadelphia, and for the past few years, have been the ophthalmic and aural surgeon. It has been established thirty years. Here girls are principally cared for. The Board of Directors have given most careful consideration to the construction of the building, and to all sanitary matters; the Lady Managers are most faithful in caring for the management of the Home. A judicious selection is made in obtaining officers and servants for the care of the children. Since 1876 three hundred and eleven children have been cared for; at present there are eighty-nine inmates. Six deaths have occurred in the ten years; none during the past four years. Many of the children have been under observation for nearly the whole time, and more for a long period. The children are given over to the Home till eighteen years of age; an opportunity has thus been afforded to study the danger children so long resident in an asylum are exposed to; as dismissals occur, new ones come in to keep up the number. My duties as ophthalmic and aural surgeon have been light, and no claim is made for personal service by the medical staff in obtaining the results of a recent examination, beyond the strict adherence to

the By-laws, which say, "Every child must have been recently vaccinated, and, also, must pass a medical examination by the physician on duty at the time of admission." Any case falling short of the medical examination is treated outside, and not allowed admission till well. A hospital ward exists, where all cases of illness are treated, and an extra ward for cases needing isolation. The sanitation is perfect; so much so that I can safely say it is an institution without a smell. The location is suburban. The bath rooms and wash rooms are especially well adapted for children; foot-baths are placed in the flooring, clean basins, clean towels, are daily supplied, and a towel assigned to each child that has any disorder of skin or eye. A nurse superintends the bath rooms, and assists the children in washing. The food is of the best. Air space in school rooms and dormitories above the standard (six hundred cubic feet of air to each child, the lowest limit allowed). Each child has a bed to itself. The playground is large; no well water on the grounds. The visiting staff of physicians divide the work of inspection and medical care of the children during the year. Children with optical defects are provided with spectacles. A school is established in the Home. Since the appearance of the report of the Committee on Contagious Ophthalmia in New York, a thorough examination has been made of the children's eyes, everting the upper lid and examining the conjunctiva carefully. Eighty-nine cases were inspected, with the following result:—

The whole conjunctival tissue normal in	49 cases.
Inside lower lid congested, with no secretion, in	31 cases.
(These cases may be considered normal, but would afford a condition for an epidemic to feed on.)	
Inside of both lids hyperæmic, no secretion. Optical defect present in	6 cases.
Granular lids, no chronic conjunctivitis, upper lid, one eye, no secretion, slight pannus, ...	1 case.
Phlyctenular conjunctivitis in .	1 case.
Catarrhal conjunctivitis, secretion one eye, in	1 case.
	89

One case was found, with a corneal opacity from former inflammation; none existing now. *No chronic conjunctival blennorrhœa was found.* No tinea tarsi was present. Blepharitis marginalis in one case. No eye has been damaged or lost during the past ten years. The thirty-one cases with congested lower lid were practically normal, as they exhibited the tendency of that part of the tissue existing among so many people, and had no secretion associated with it.* The result of the ocular examination corresponds well, with the general health of the children, under the care of the visiting physicians, no death having occurred in four years. I am perfectly well aware that this Home has fewer numbers than many, and is not subjected to the immediate admission of children by order of the courts, or the homeless waifs of the city, but the same care that is exercised could protect many more, as well. The proposed Act before the Legislature of New York contains all the features that have been carried out at the Church Home, with such good results, and it affords an opportunity to give an example that shows the wisdom of seeking medical legislation for juvenile life in Homes, when such efforts are not attempted without it. Philadelphia has thirty-seven Homes for children.† Are they all in a good sanitary state? Does our blind asylum receive many cases from them? I have preferred to call the attention of this Society to the subject of contagious ophthalmia, by showing the results in an institution in which the management, while desiring to be charitable to unprotected children, throws around them, without medical legislation, all that sanitary science and preventive medicine can do, to carry them through to a period of life when, in good bodily health, they can support themselves. It has been attempted in this way, rather than, without authority, to have made an examination of Homes, of the laws of which I was ignorant, and possibly have presented a deplorable state of things. Will our children's asylums make as bad a showing as those in New York have done? I venture to say, they will not. Conjunctival disease is not so frequent here, in the eye hospital, or in private practice, as in New York. Would it be well for this Society to know just what state of things, in this

* Two cases of otitis externa are now under treatment.

† Six hospitals are established.

respect, exists among these Homes, and if found to be present, and danger of blindness facing the inmates of them, to correct it, either by medical legislation, or by a better attention to sanitary and hygienic laws? The managers of all such institutions must certainly desire it, for the welfare of their wards. Should not these institutions have an ophthalmic and aural surgeon on their staff of physicians? Would it be going too far for boards of health to include contagious ophthalmia in the list of those diseases that are required to be reported, for the safety of the public? The danger is as great outside of these institutions, as in them. These suggestions I submit to your consideration, based on the results that have been presented to you, from several years' experience in hospitals and homes for children.

DISCUSSION ON DR. LITTLE'S PAPER.

Dr. George C. Harlan.—To illustrate the importance of what has been said, I will state that some years ago I made a careful examination of the inmates of the Pennsylvania Institution for the Blind, and found that, out of 167 inmates, in one-third the blindness was due to purulent ophthalmia. This subject has received considerable attention since then, and I do not think that these figures would now apply. This is not, however, an entirely reliable indication of the frequency of the disease, for in a large proportion of cases the patients receive competent treatment, which prevents the affection from resulting in complete blindness.

I would like to know if Dr. Little's observations tend to show that this chronic form of purulent ophthalmia may, under bad hygienic surroundings, arise *de novo*, or that contagion is the only cause? There is no doubt that contagion is the chief and most important cause, and that the necessity of careful isolation cannot be too strongly urged.

The speaker has referred to the question of granular ophthalmia. Exactly what is meant by this term, even after many years of discussion, is not always entirely clear. Arlt, in his clinical studies, recently translated, does not consider granular conjunctivitis, or trachoma, as a special disease, but merely a complication of what he terms conjunctival blennorrhœa. He describes the latter affection as an inflammation of the conjunctiva with a muco-purulent discharge and fibroplastic infiltration of the tissues of the lid. In comparing a case of acute purulent ophthalmia, gonorrhœal, for instance, with one of granular trachoma, it seems to me difficult to consider them one and the same disease. At the same time, there is a large number of cases of contagious chronic purulent ophthalmia, with or without trachomatous granulations, which, so far as prophylaxis prognosis and treatment are concerned, may be considered practically as belonging to the same class.

There is another form of ophthalmia which belongs to the class of ordinary catarrhal conjunctivitis, the contagiousness of which is often not sufficiently impressed upon those having charge of such cases. This is the form popularly known as "pink eye." I have known this to be communicated by contagion from want of proper precautions, particularly at boarding school. Epidemic influence is properly considered the chief factor in the spread of this disease, but so long as there is any doubt about its contagiousness, patients should have the full benefit of it. In practice, it is safest not to make fine distinctions, but to treat all inflammations of the eye with discharge as contagious.

Dr. Samuel D. Risley.—I was much impressed by the importance of one of Dr. Little's concluding statements – that relating to the frequency and equal importance of so-called contagious ophthalmia outside of public charities. I would ask Dr. Little if he had kept any record of the percentage of applicants for admission rejected for this cause. Such a record would be both interesting and important, as throwing some light upon the importance of contagion as a factor in the ætiology of this disease. It has been my conviction for a long time that, while contagion is an important factor in the spread of the disease, it is by no means the only or most important source. It seems to me that its relation to these institutions has been exaggerated in some degree. I have had no direct experience, based upon official relations with these public charities, but forming my opinion from observation at the University Hospital Eye Clinic, I should say that children in the same walks of life, and subjected to like conditions of health, are equally liable to the disease, and that without the massing in one building. I fear too little attention is often paid to the personal equation. An acute catarrh, from irritation or cold, taking in a vigorous individual gets well in a few hours without treatment, whereas in feeble individuals, especially those from among the neglected, friendless, and badly-fed class from which our children's asylums are filled, the inflammation persists, and often, in spite of well-devised treatment, we have presented the chronic contagious form of the disease; certainly contagious for others in like condition of health. Dr. Little's reference to the Indian children calls to mind that quite a large group of these boys has been at the University Dispensary service suffering from trachoma. They have, without exception, been in poor health, and probably feeling the climatic

change to which they were subjected. They were badly nourished, tissues flabby, and were evidently out of sorts. In several cases, indolent ulcers of the cornea were associated with the conjunctival disease. There was in these cases another factor which may have been of some importance. They were highly hypermetropic, and had been subjected to the eye-strain of the educational process in the institution. The fact that this form of disease is so rare in private practice would seem to point to the important relation existing between this inflammation of the conjunctiva and the depressing influences surrounding the abject poor, from which class the disease is so largely recruited.

The depressing influence of the disease itself should not, however, be overlooked. I am sure we have all repeatedly seen the health go down under the discouraging circumstances of chronic granular lids with vascular cornea following acute purulent ophthalmia.

DR. C. S. TURNBULL.—I agree with Dr. Little in every respect. The proper way to prevent this affection is by thorough inspection of the children before admission.

My experience has been chiefly in the Catholic homes for children in this city. There the management cannot select the children, and it has been almost a hopeless task to stamp out the disease, which is almost a scourge. I have preferred to call this form of conjunctivitis "asylum" or contagious trachomatous ophthalmia. I am satisfied that the origin of the acute form of the disease is invariably inoculation with virulent pus. In St. Joseph's Orphan Asylum, where they have 400 children, a "sore-eyed child" was admitted against the remonstrances of the Mother Superior, and in ten days 49 children had the disease. They were quarantined on the top floor, and the Mother Superior and one of the Sisters devoted themselves to their care. They also contracted the disease, but by prompt treatment and unceasing vigilance all recovered. Three days after the sore-eyed child was admitted, several of the children were sent to the branch asylum in Germantown, and about one-half of the children in that institution contracted the disease.

I have had no experience with Indian children brought East, but I have seen the disease in adult Indians, when I was West, with Prof. Hayden, in 1874. I found trachomatous conjunctivitis of the dry form quite prevalent. It was attributed to the fact of their spending so much of their time in the smoke of their "teepes."

The duration of true chronic "asylum" or contagious trachomatous conjunctivitis is at least three years. That is, within this time I consider there is danger of communicating the disease.

With regard to treatment, I have found in the acute stage a solution of corrosive sublimate, one to six or eight thousand, with vaseline at bedtime, to anoint the lids and keep them from sticking, the best plan, and one to be recommended. In the chronic stage, to remove the hypertrophy of the Meibomian follicles, I use daily applications of sulphate of copper, which treatment, however, will be comparatively useless unless the lids be kept inverted until the excess of copper has been thoroughly washed off with cold water.

DR. B. ALEXANDER RANDALL.—I agree with the statement that this disease is as common outside of asylums as within them. The personal equation as to the health of the individual is a most important matter, as stated. These disorders are more or less *preventable*, and it is for this reason that this is an especially important matter in connection with asylums, where prevention is possible, and therefore imperative.

Almost all these cases begin as acute affections. There is one point which has been barely alluded to. It is well known that the most important cause of this affection in new-born infants is the irritation from a vaginal secretion of the mother. Even in older children, such as fill these asylums, it is possible to have inoculation in a similar way, as they are rather prone to a sort of leucorrhœa.

Reference has been casually made to discharging ears in this report. That there may be a casual connection here, cannot, I think, be too strongly insisted upon. In illustration, I will briefly allude to a case in the Children's Hospital, in which a weak and anæmic nurse, in syringing a mastoid abscess, received a drop of pus in the eye. This was followed in ten hours by the occurrence of inflammation, which assumed the form of severe acute purulent ophthalmia. The case passed on to one of granular lids, but ultimately recovered. Other causes for the inflammation could not be absolutely excluded; but the evidence, positive and negative, indicated that the aural discharge was the cause.

DR. GEORGE C. HARLAN.— Dr. Randall's case is extremely important, if the connection with the mastoid abscess can be completely made out, by vigorous exclusion of all other possible causes. We frequently have the conjunctiva exposed to the action of pus without blennorrhœal ophthalmia following. The general opinion is that there is something specific in the discharge of conjunctival blennorrhœa.

DR. W. M. WELCH.—I may allude to my experience in the Northern Home for Friendless Children, with which institute I became connected in 1865, as attending physician, and served as such for eighteen years. The institution was always crowded, and it was difficult to convince the lady managers of the

great importance of care in regard to admissions. As a result, contagious skin diseases and eye affections frequently found their way into the Home. Of these affections none were more common than purulent ophthalmia. During the earlier years of my service, I frequently saw in the course of a three months' term one hundred or more such cases. Granular lids were also quite common.

I have no question as to the contagious nature of the affection. It seemed to attack in preference children of broken health, and especially those of a strumous diathesis. Some years later, additional ground was secured, which was used as a playground, this gave the children more out-of-door exercise, and enabled the building to be better ventilated. As a result, the general health of the children improved, and this form of ophthalmia disappeared.

Dr. James W. Walk.—I have had three years' experience with this affection in the institution referred to by Dr. Welch. During my service a number of children were admitted with what is popularly termed "sore eyes." The majority of children during their stay in the House had more or less inflammatory trouble with the conjunctiva. They seem to outgrow their susceptibility to it. Those who had it when young, escaped it at a later period of life. New children were attacked, while the older ones escaped.

We were in the habit of treating the disease in a somewhat routine manner, with a solution which I have not heard mentioned elsewhere. It was prepared as follows:—

℞.	Chloralis,	grs. c	
	Argenti nitratis,	grs. x	
	Zinci sulphatis,	grs. xx	
	Glycerinæ,	℥j	
	Aquæ,	℥ ix.	Solve.

This proved extremely soothing, and I think beneficial.

The effect of improvement of the general health was well exemplified on one occasion when an epidemic was threatened. The dietary was improved by an increase in the quantity of meat, and the epidemic was averted.

I believe that at the present time there is very little of the disease present in the institution. I know of only two cases in which blindness resulted, and in one of those the blindness is only partial.

Dr. William S. Little.—I endeavored to make the paper of a general character, and did not take up the consideration of contagious ophthalmia or its treatment.

In regard to the contagiousness of trachoma, I think that there are cases which are not in themselves contagious. I only found it in one case in the institution to which I have referred, by everting the lower lid. There were no symptoms to direct attention to it. This case had been in the institution for some time, and had not spread the disease. Possibly, if she had been placed in an institution where the sanitary arrangements were less perfect, the disease might have been communicated. If the body is sound, and the mucous membrane of the eye healthy, the contagion may be thrown off. Dr. Randall's case of an eye being affected from material introduced accidentally from an ear case, is very instructive, especially as a trachomatous condition developed.

Dr. Risley has reported as to the condition of the health and state of the eyes of the Indian boys referred to in my paper. A number of children have been refused admission to the Church Home on account of conjunctivitis, but no record exists. As a leucorrhœa or a balanitis may arise *de novo* from neglect, uncleanliness and poor health, there is no reason why a conjunctivitis, under similar circumstances, should not arise *de novo;* but the sources of contagion are so numerous, that it must be considered the prime factor in producing inflammation of the mucous membrane of the eye, and as Dr. Harlan says, the general opinion is in favor of the discharge from conjunctival blennorrhœa being specific. The remarks of Drs. Turnbull, Welch and Walk illustrate the danger children's homes are exposed to from what is already prevalent outside of them.

Compliments of
W. S. Little M.D.